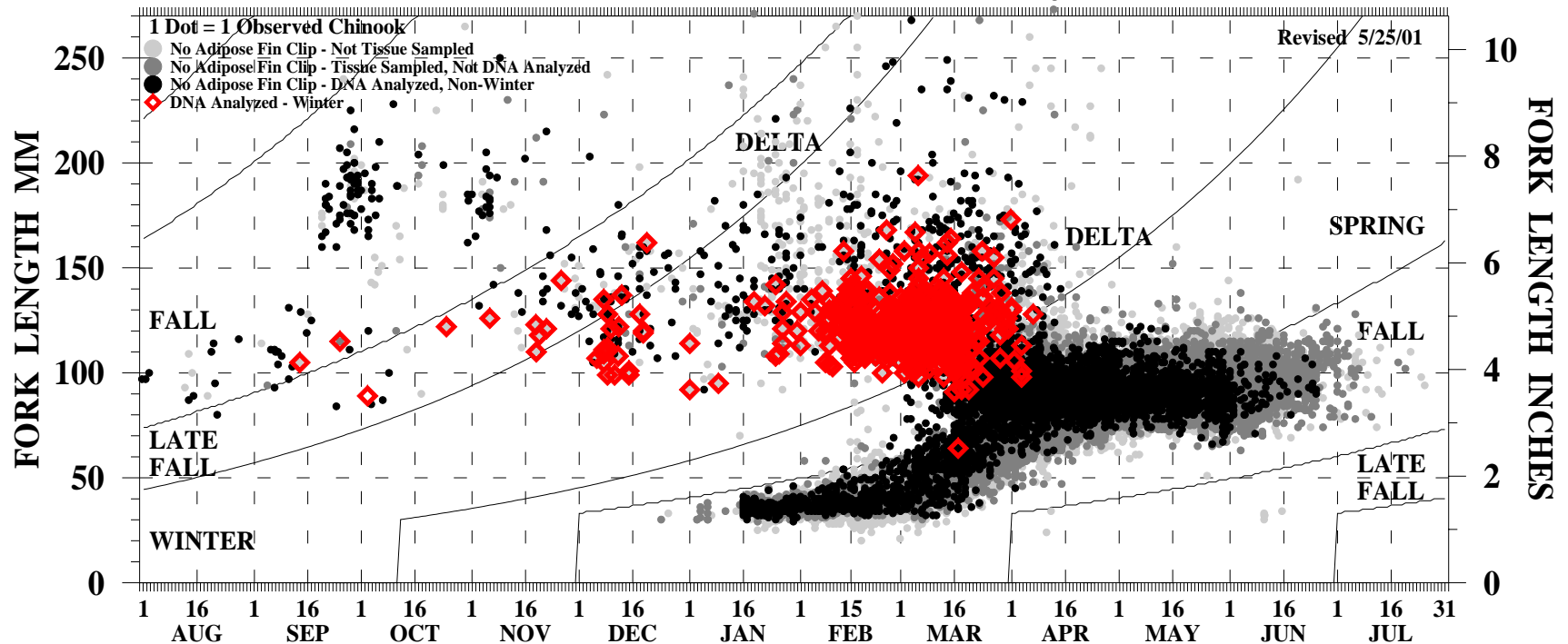


Figure 1. Central Valley Chinook Genetic Relatedness tree.

(Banks et al. 2000)

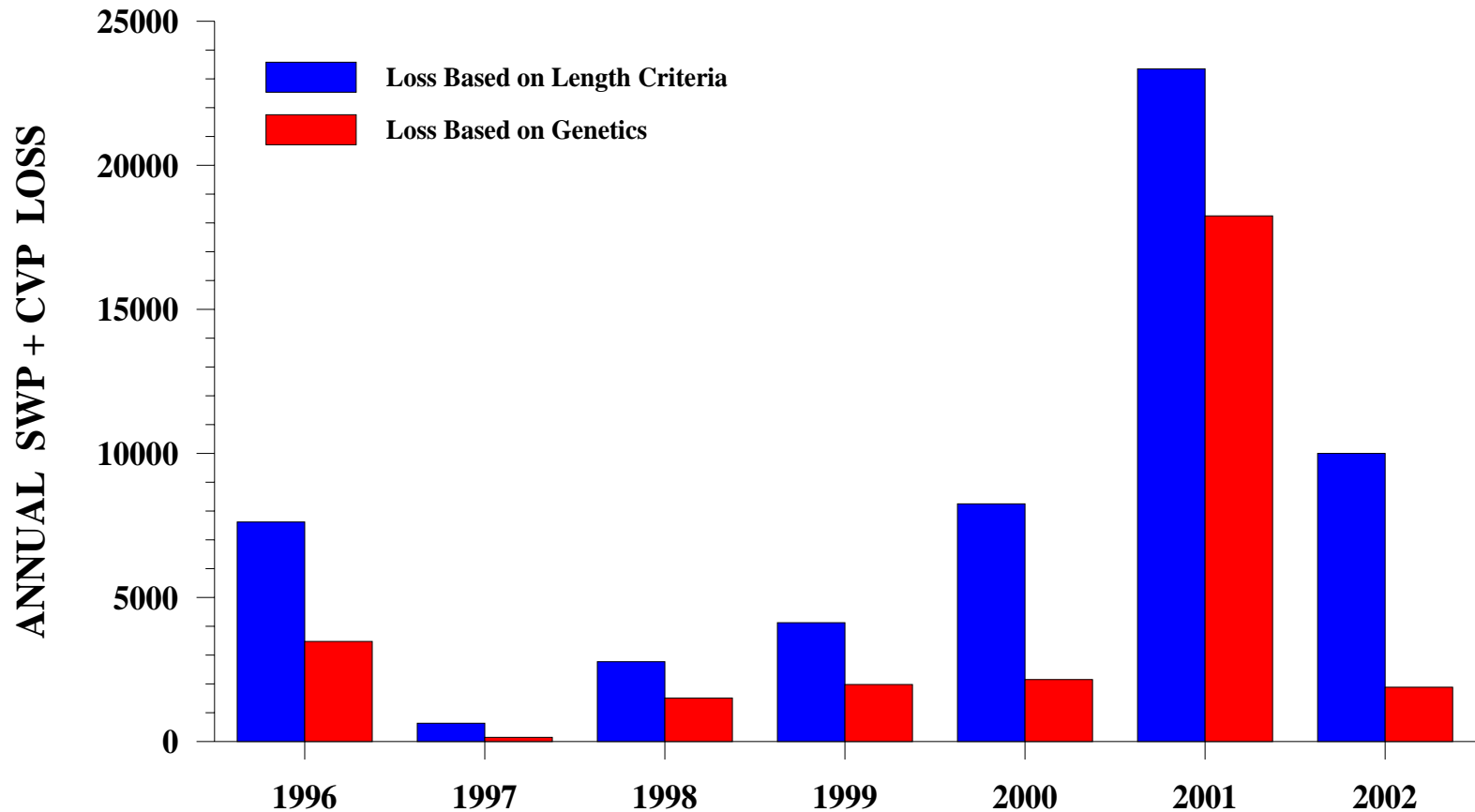
OBSERVED CHINOOK SALVAGE AT THE SWP & CVP DELTA FISH FACILITIES 8/1/95 THROUGH 7/31/02



Preliminary, Subject to Revision
Sheila Greene, DWR 10/01/2001

Figure 2. Winter run, based on genetic characterization, salvaged at the Delta exports aggregated over 7 years.

ANNUAL WINTER RUN LOSS BASED ON LENGTH CRITERIA AND GENETIC IDENTIFICATION, 1998 - 2002



Preliminary
Sheila Greene, DES-DWR, 9/7/2004

Figure 4. Mortality at the Delta exports, also called loss, calculated based on length criteria and genetic characterization.

Table 1. Current genetic microsatellite markers for spring and winter run, and former markers for winter run.

MARKERS

Current Markers

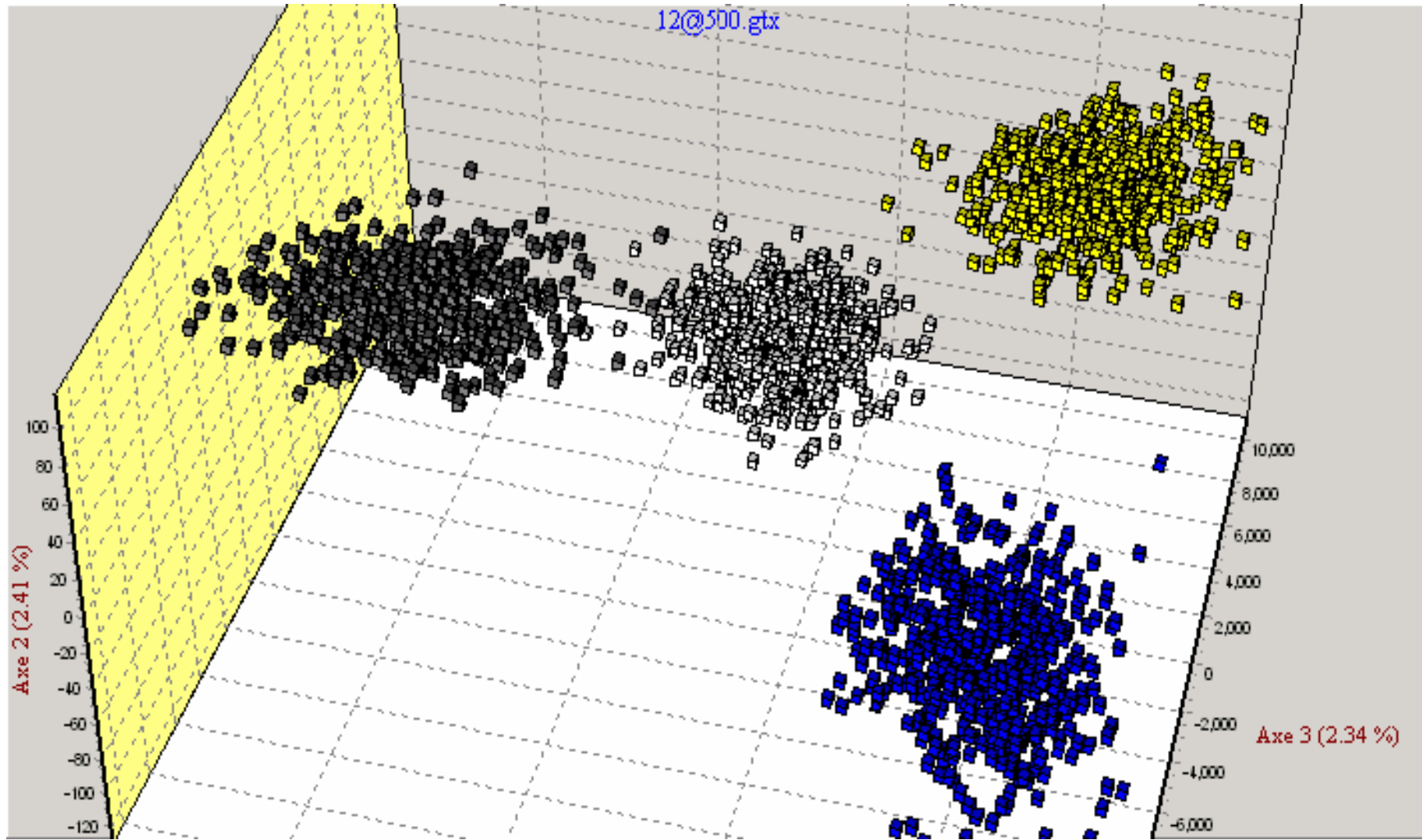
Ots83b, **Ots104**, **Ots107**, Ots201, Ots209, Ots211, Ots213, OtsG249,
OtsG253b, OtsG311, OtsG409, OtsG422

Former Winter Run Markers

Ots2, Ots3, Ots9, Ots10, One13, **Ots104**, **Ots107**

Top 12

Ots-311, 107, 409, 422, 209, 253, 204, 104, 249, 211, 83b, 213



Banks, OSU, 2004

Figure 5. Central Valley Chinook genetic characterization factorial analysis.

Table 2. Accuracy of individual identification using simulation modeling.

ACCURACY

Run	%Correct	Variance	% False Positive	Variance
Winter Run	100	0.001	0.07	0.04
Butte Spring Run	99	0.008	0.9	0.8
Mill/Deer Spring Run	99	0.6	0.4	0.8
Fall Run	99	0.7	0.1	0.8
Late-Fall Run	99	0.05	0.5	0.4

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- Banks, M.A. 2004. Stock identification for the conservation of threatened or endangered species. In: Stock identification methods Eds: Cadrin, S.X., K.D. Friedland and J.R. Waldman. Elsevier Press. In Press.
- Banks, M.A. and D.P. Jacobson. 2004. Which Genetic Markers and GSI Methods are More Appropriate For Defining Marine Distribution and Migration of Salmon? North Pacific Anadromous Fish Commission Technical Note 5: In Press.
- Greig, C., D.P. Jacobson, and M.A. Banks. 2003. New tetranucleotide microsatellites for fine-scale discrimination among endangered Chinook salmon (*Oncorhynchus tshawytscha*). Molecular Ecology Notes 3:376-379.
- Banks, M.A. W. Eichert, and J.B. Olsen. 2003. Which Genetic Loci Have Greater Population Assignment Power? Bioinformatics 19(11):1436-1438.